



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/644,067	08/20/2003	Masato Suzuki	031034	4345
38834	7590	01/11/2006	EXAMINER	
WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP 1250 CONNECTICUT AVENUE, NW SUITE 700 WASHINGTON, DC 20036			RODRIGUEZ, SAUL	
			ART UNIT	PAPER NUMBER
			3681	

DATE MAILED: 01/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/644,067	SUZUKI ET AL.	
	Examiner	Art Unit	
	Saúl J. Rodriguez	3681	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 and 15-17 is/are pending in the application.
- 4a) Of the above claim(s) 1-7 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-13 and 15-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on 30 August 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This communication is responsive to the Request for Continued Examination and the amendment filed August 30, 2005 (now entered).

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Election/Restrictions

Applicant's election without traverse of Group II in the reply filed on September 24, 2004 is acknowledged.

Claims 1-7 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on September 24, 2004.

Drawings

The drawings were received on August 30, 2005. These drawings are approved.

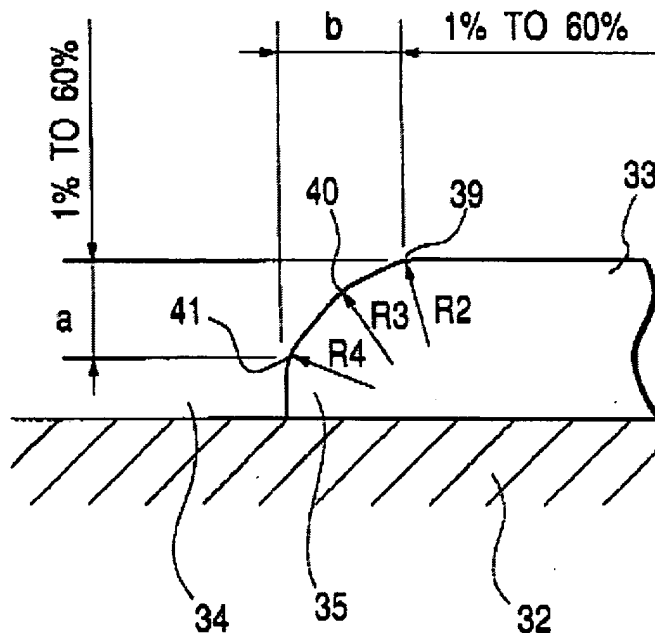
Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki ('942) in view Stefanutti et al. ('288).

Suzuki discloses a friction material comprising a core (32), a friction material substrate with segments (33) joined to the core wherein the side portions form straight lines with chamfered portions.

FIG. 4

Suzuki et al. does not teach sides that are formed by press forming, if the segments are adhered to the core, or if the core is made of metal.

Concerning the material of the core, Stefanutti et al. discloses a friction material comprising a metal core (1), a friction material substrate with segments adhered to the core.

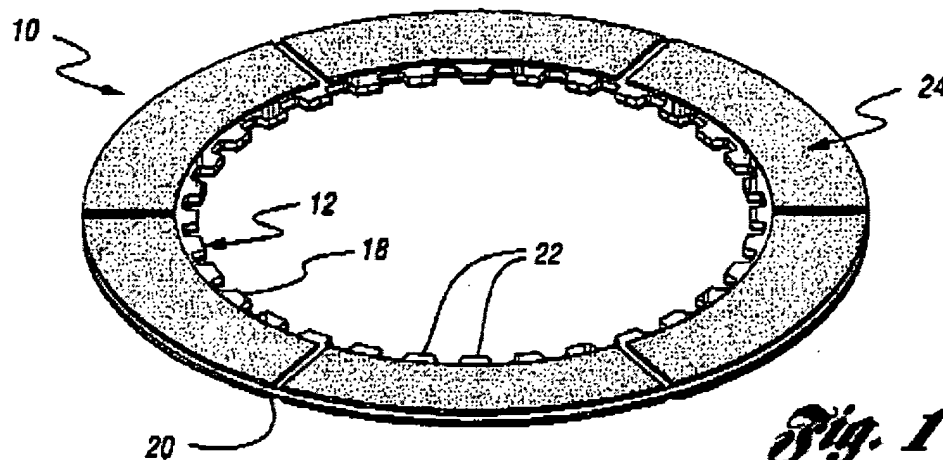


Fig. 1

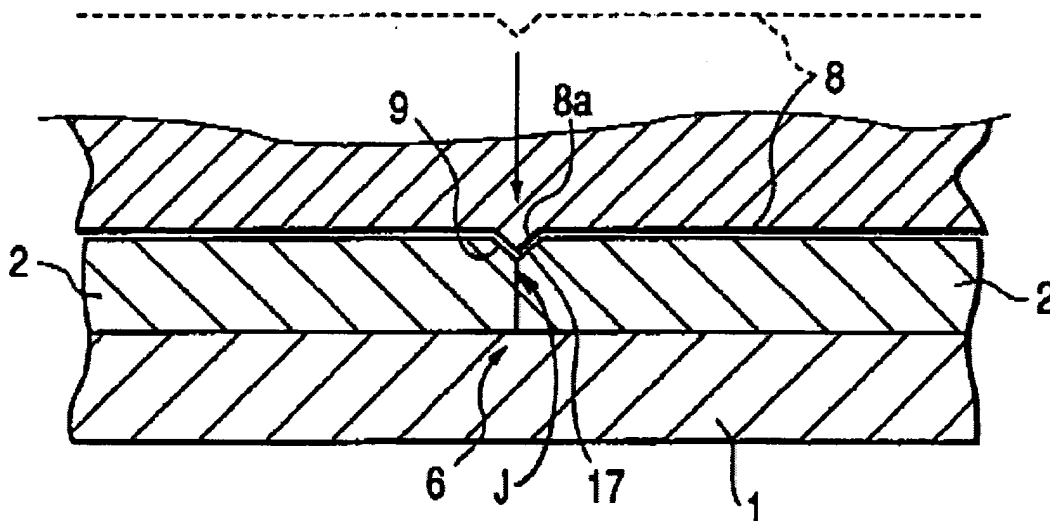
Then, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use metal for the core of Suzuki in further view of Stefanutti to provide a durable and inexpensive base for the segments.

Concerning the manufacturing method and its associated limitations, the method is not germane to the issue of patentability of the device itself. Therefore, it has not been given patentable weight.

Concerning the limitation of the parallel lines defining a separation between a pressed and un-pressed area, it is believed that Suzuki's lines formed at 39 and 40 anticipate the claimed limitation.

Suzuki discloses a friction material comprising a core (32), a friction material substrate with segments (33) joined to the core wherein the side portions form straight lines with chamfered portions. Suzuki does not teach press forming the edges, segments that are adhered to the core, or a core made of metal.

FIG. 2



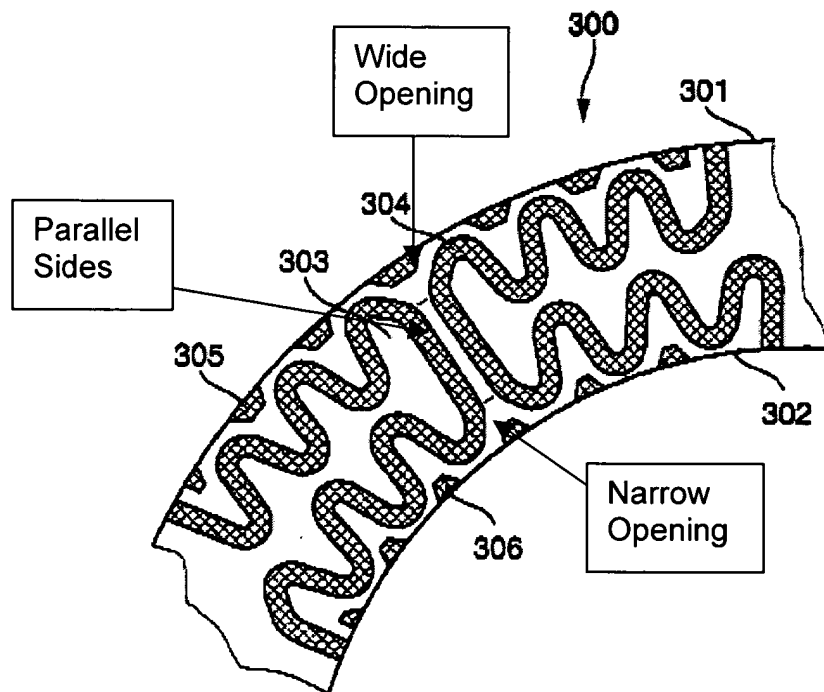
Then, it would have been obvious to one having ordinary skill in the art at the time the invention was made to adhere the segments to the core and pressing the entire

segment (including its four sides) to improve the endurance of the friction assembly
(Suzuki et al.; Col. 1, lines 40-41).

Claims 9-13 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable
over Suzuki ('942) in view of Fischer et al. ('260) and further in view of Stefanutti et al.
('288).

Suzuki does not teach a gap/groove having the claimed configuration, if the
segments are adhered to the core, or if the core is made of metal.

Fischer et al. discloses a wet-type friction material having a core, friction material
pieces, a gap, a width at an outer peripheral opening being larger than a width at an
inner peripheral opening, parallel linear opposite sides, and a V-shape.



Concerning the material of the core and the adhesion of the segments, Stefanutti et al. discloses a friction material comprising a metal core (1), a friction material substrate with segments adhered to the core.

Then, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to configure the gap/groove of Suzuki to have the conventional shape of Fisher al. to achieve the desired flow characteristics.

Also, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use metal for the core of Suzuki in view of Fischer et al. in further view of Stefanutti to provide a durable and inexpensive base for the segments.

Also, it would have been obvious to one having ordinary skill in the art at the time the invention was made to adhere the segments to the core of Suzuki in view of Fischer et al. in further view of Stefanutti to securely fix the segments to the core.

Concerning claims 10-11, the the combination taught by the prior art discloses the claimed invention except for claimed proportions. It would have been obvious to one having ordinary skill in the art at the time the invention was made to XXXX, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Response to Arguments

Applicant's arguments filed August 30, 2005 have been fully considered but they are not persuasive.

Concerning applicant's arguments about claims 8 and 15, the examiner respectfully disagrees. Specifically, it is believed that the heating and heat compression aspects of the claims are not structural features. The end result of the procedure method is merely a structure with rounded/chamfered edges as those disclosed by the prior art. These rounded/chamfered edges extend along the edges of opposite and adjacent friction materials along a straight line. Also, it is believed that lines 39 and/or 40 of the opposite-adjacent liners are straight and parallel to each other. The cutting, pressing and un-pressing are read as method limitations that do not yield structural differences with respect to the prior art.

Concerning applicant's arguments regarding claim 16, the examiner submits that the prior art does show four edges/sides/corner. It is believed that pressing the friction material would also press the sides up to at least the edges of the rounded corners. Furthermore, included Figure 2 of Suzuki et al. does show pressing of the edges throughout the chamfered portion.

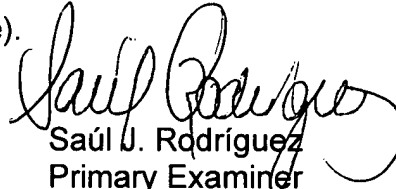
Concerning claims 9-13 and 17, the arguments are deemed moot in view of the new grounds of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Saúl J. Rodríguez whose telephone number is (571) 272-7097. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles A. Marmor can be reached on (571) 272-7095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Saúl J. Rodríguez
Primary Examiner
Art Unit 3681


SJR



FIG. 17

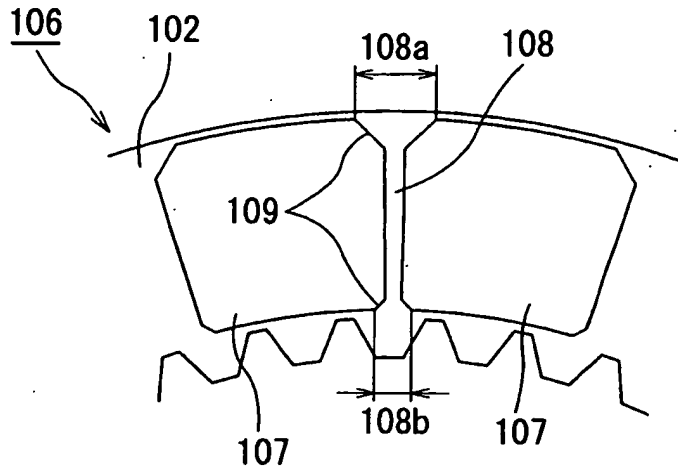
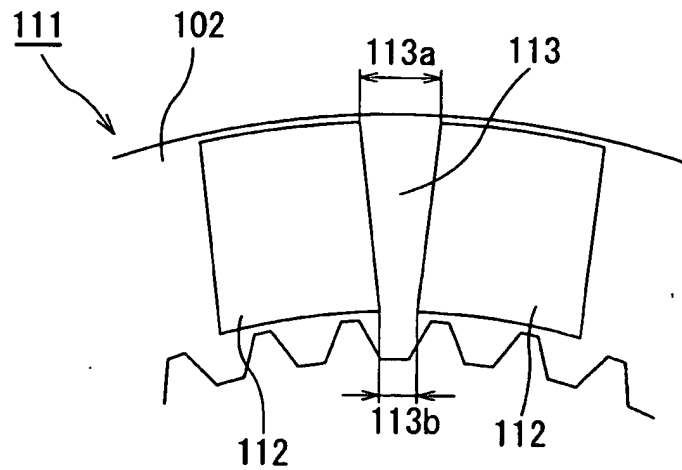


FIG. 18



Approved
1/6/05
g